

What is claimed is:

1. A method comprising:
  - receiving location information of one or more friendly force;
  - receiving targeting and weapon effect information of a weapon system;
  - 5 determining if a friendly force would be effected by the weapon system if discharged based on the received targeting information and the received location information; and
  - generating a responsive signal if it is determined that a friendly force would be effected by the weapon system if discharged based on the determination.
- 10 2. The method of Claim 1, wherein the responsive signal includes a disable signal adapted to disable operation of the weapon system.
3. The method of Claim 1, wherein the weapon effect information is based on selected munitions information.
4. The method of Claim 1, wherein the responsive signal includes a warning signal  
15 adapted to alert an operator of the weapon system.
5. The method of Claim 1, wherein receiving targeting information includes:
  - receiving targeting information from a weapon system if the weapon system has been placed in an aim mode of operation.
6. The method of Claim 1, wherein the responsive signal includes a disable signal  
20 adapted to disable operation of the weapon system, the method further comprising:
  - overriding a disabled state of the weapon system; and
  - generating an override signal.



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7. The method of Claim 6, further comprising:

sending the generated override signal from the overridden weapon system to a command and control system.

8. The method of Claim 7, wherein receiving targeting information and sending the  
5 override signal includes wirelessly receiving information and wirelessly sending the override signal.

9. The method of Claim 8, wherein wirelessly receiving information includes wirelessly receiving information over a satellite communication network.

10. The method of Claim 7, further comprising:

10 transmitting the received override signal from the command and control system to the friendly force determined to be targeted.

11. The method of Claim 1, wherein location information of one or more of the friendly forces is generated using a global positioning receiver.

12. The method of Claim 11, further comprising:

15 indicating motion if the generated location information is greater than a threshold amount when compared to previous location information; and  
sending the generated location information to an associated command and control system if motion is indicated.

13. The method of Claim 1, further comprising storing an image of a battlefield,

20 wherein determining if one or more friendly personnel would be effected by one of the weapon systems is performed by associating the location information with the stored image, determining an area of effect on the image based on the



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targeting information, and determining if the location information places one or more friendly personnel within the area of effect on the image

14. A system comprising:

a plurality of locator devices each having a communication component and each being adapted to determine location information of one or more friendly personnel;

a plurality of weapon systems having a communication component, the weapon systems being adapted to determine weapon effect information and determine if the weapon is in an aim mode or fire mode;

a plurality of computer-based systems each including:

a first communication component adapted to receive the determined location information, the determined weapon effect information, and the weapon mode;

memory adapted to store received location information;

a second communication component adapted to communicate with other computer-based systems; and

a processor adapted to determine if at least one of the friendly personnel is effected by one of the weapon systems based on the received location information, and the weapon effect information and generating a responsive signal, if at least one of the friendly personnel is determined to be effected by one of the weapon systems and the weapon is determined to be in the fire mode.

15. The system of Claim 14, wherein the responsive signal includes a disable signal adapted to disable operation of a corresponding one of the weapon systems.



16. The system of Claim 1, wherein the weapon effect information is based on selected munitions information.

17. The system of Claim 14, wherein the responsive signal includes a warning signal adapted to alert an operator of a corresponding one of the weapon systems.

5 18. The system of Claim 14, wherein one or more of the weapon systems include a device adapted to put the weapon system in a disable state, if the communication component of the weapon system receives a disable signal from the first communication component.

19. The system of Claim 18, wherein one or more of the weapon systems include an override switch adapted to allow an operator to override the disabled state of the weapon  
10 system and put the weapon system in the fire mode, and a component adapted to generate an alert signal when the override switch has been activated and send the alert signal to the associated computer-based system.

20. The system of Claim 19, further comprising:

15 a plurality of output devices associated with one or more of the friendly personnel,

wherein the computer-based system that receives an alert signal is adapted to transmit the received alert signal to at least one of the output device associated with the friendly personnel determined to be effected by one of the weapon systems or the computer-based system associated with the personnel  
20 determined to be effected by one of the weapon systems,

wherein when the alert signal is transmitted to the computer-based system associated with the personnel determined to be effected by one of the weapon systems, the associated computer-based system transmits the alert signal to the



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output device associated with the friendly personnel determined to be effected  
by one of the weapon systems,  
wherein the output device is adapted to output an alert based on the received alert  
signal.

5        21. The system of Claim 14, wherein the second communication component  
communicates over a wireless network.

22. The system of Claim 21, wherein the wireless network includes a satellite network.

23. The system of Claim 14, wherein the first communication component  
communicates wirelessly with associated locator devices and weapon systems.

10       24. The system of Claim 14, wherein at least one of the locator devices include a global  
positioning receiver.

25. The system of Claim 14, wherein the memory further includes an image of a  
battlefield, and wherein the processor determines if one or more friendly personnel would be  
effected by one of the weapon systems by mapping location information to the image,  
15       determines an area of effect on the image based on the weapon effect information, and  
determines if the location information places one or more friendly personnel within the area  
of effect on the image.

26. The system of Claim 14, wherein one or more of the locator devices sends the  
generated location information if the locator device has moved greater than a threshold  
20       amount when compared to previous location information.



27. A system comprising:

a first communication component adapted to receive the location information of one or more friendly personnel and the weapon effect information of one or more friendly weapon systems;

5 memory adapted to store the received location information;

a second communication component adapted to communicate with other systems; and

10 a processor adapted to determine if one or more friendly personnel are effected by one of the weapon systems based on the stored location information, and the weapon effect information, and adapted to generate a responsive signal, if a friendly personnel is determined to be effected by one of the weapon systems and the weapon is determined to be in the fire mode.

28. The system of Claim 27, wherein the responsive signal includes a disable signal  
15 adapted to disable operation of a corresponding one of the weapon systems.

29. The system of Claim 27, wherein the responsive signal includes a warning signal adapted to alert an operator of a corresponding one of the weapon systems.

30. The system of Claim 27, wherein when the system receives an alert signal the system transmits the received alert signal to at least one of a device associated with the  
20 friendly personnel determined to be effected by one of the weapon systems or the system associated with the personnel determined to be effected by one of the weapon systems.

31. The system of Claim 27, wherein the second communication component communicates over a wireless network.

32. The system of Claim 31, wherein the wireless network includes a satellite network.



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33. The system of Claim 27, wherein the first communication component communicates wirelessly with associated locator devices and weapon systems.

34. The system of Claim 27, wherein the memory is adapted to store an image of a battlefield, and wherein the processor determines if one or more friendly personnel would be  
5 effected by one of the weapon systems by associating location information with the image, determines an area of effect on the image based on the weapon effect information, and determines if the location information places one or more friendly personnel within the area of effect on the image.

